



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,926	03/26/2004	Osamu Kawachi	025720-00028	6762
4372	7590	02/01/2006	EXAMINER	
ARENT FOX PLLC 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			SUMMONS, BARBARA	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 02/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/809,926

Applicant(s)

KAWACHI ET AL.

Examiner

Barbara Summons

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 November 2005 and 22 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 7-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 7-17 is/are allowed.
- 6) ☒ Claim(s) 18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/28/05 &amp; 11/4/05</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *New Grounds of Claim Objections*

1. Claims 18 and 19 are objected to because of the following informalities:

In claim 18, on line 3, "and first film" should be changed to - - and a first film - -.

In claim 19, on line 8, "an a position" should be changed to - - and a position - -.

Appropriate correction is required.

### *Withdrawn Claim Rejections - 35 USC §§ 102 and 103*

2. Applicants' amendments received 11/4/05 and 11/22/05, and arguments received 11/4/05 have overcome all previous rejections, and these prior rejections have been withdrawn.

### *New Grounds of Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 18 and 19 are rejected under 35 U.S.C. § 102(e) as being anticipated by Cohn et al. U.S. 6,853,067 (of record).

Regarding the claimed feature "surface activation process", as also stated in the prior Office action, it should be noted that the specification is not considered to have provided a special definition for this terminology, and so the Examiner will give it its

Art Unit: 2817

broadest possible interpretation. Additionally, regarding apparatus claim 18, "joined by a surface activation process" is given very little patentable weight since this is considered to be a product-by-process claim in which it is the finished product that determines patentability. That is, "the patentability of a product does not depend on its method of production" *In re Thorpe*, USPQ 964,966 (Fed. Cir. 1985) (citations omitted). [See also MPEP § 2113].

Cohn et al. disclose a MEMs (MicroElectroMechanical) device (Fig. 3a) that is also disclosed to include surface acoustic wave devices (see col. 10, lines 30-33), comprising: a substrate 300 that inherently must be piezoelectric for the surface acoustic wave device to function, and Cohn specifically discloses the piezoelectric material quartz (see col. 7, lines 23-26 and col. 10, lines 12-18), on a first surface of the piezoelectric substrate there are formed comb electrodes, first pads 314 connected thereto, and a first film 312 that surrounds the comb electrode; a base substrate 350 having a second surface on which second pads 314' joined to the first pads (Fig. 3c) and a second film 312' joined to the first film are provided; and an electronic element 318 provided on an area of the second surface facing the first surface, wherein the first and second films 312/312' are "configured to be joined by a surface activation process" being heat and pressure (see e.g. box 470 in Fig. 4) and to define a cavity in which the comb electrodes, the first and second pads 314/314', and the electronic element 318 are hermetically sealed (see e.g. col. 4, lines 34-37).

Regarding the method claim 19, as can be seen in Figs. 3a-c, the first pads and film correspond in position with the second pads and second film. Additionally, each of

Art Unit: 2817

the surfaces of the first film and the second film have a "surface activation process" applied thereto, wherein the "surface activation process" can be considered to be the heat and/or the pressure applied, or can also be considered to be the disclosed degassing process that "activates" the gold surfaces by reducing their hardness so that the bonding requires less pressure (see e.g. col. 11, lines 46-52).

### ***Response to Arguments***

5. Applicants' arguments with respect to claims 1 and 13 were persuasive, and the prior rejections have been withdrawn. Applicants put forth no peremptory arguments regarding new claims 18 and 19, and therefore, no further response by the Examiner is considered necessary at this time.

### ***Allowable Subject Matter***

6. Claims 1-5 and 7-17 are allowable over the prior art of record.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 2817

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara Summons whose telephone number is (571) 272-1771. The examiner can normally be reached on M-Th, M-Fr.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Pascal can be reached on (571) 271-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

bs  
January 30, 2006



**BARBARA SUMMONS  
PRIMARY EXAMINER**